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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/078,317	02/15/2002	Sheng-Tsung Liu	JCLA7259	5649

7590  
J.C. Patents, Inc.  
Suite 250  
4 Venture  
Irvine, CA 92618

01/28/2003

EXAMINER

CHAMBLISS, ALONZO

ART UNIT	PAPER NUMBER
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2827

DATE MAILED: 01/28/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/078,317

Applicant(s)

LIU ET AL.

Examiner

Alonzo Chambliss

Art Unit

2827

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 15 February 2002.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-15 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 15 February 2002 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All   b) ☐ Some \*   c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)                      4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)                      5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_                      6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Priority***

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

### ***Drawings***

2. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference sign(s) not mentioned in the description: 209 in Fig. 3. A proposed drawing correction, corrected drawings, or amendment to the specification to add the reference sign(s) in the description, are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

### ***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation

under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

4. Claims 1-3, 5, 7, and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over the Admitted Prior Art and Wakabayashi et al. JP 59-54249) and Mukai et al. (U.S. 5,391,915).

With respect to Claims 1, 7, 8, the Admitted Prior Art discloses a lead frame 100, wherein the lead frame 100 includes a plurality of first leads 112 defining a chip-bonding region, a plurality of second leads 112a extending and terminating in a plurality of contact pads 120, 122 within the chip-bonding region 102. A die pad 104 is located in the chip-bonding region 102, wherein a chip 106 bonded onto the die pad 104. A passive device mounted between and connected to the contact pads 120, 122 (see Specification, pages 1 and 2; Figs. 1 and 2). The Admitted Prior Art fails to disclose a plurality of bonding wires electrically connecting the chip, the passive device to and the first and second leads to one another. An encapsulant material encapsulating the chip, the passive device, and the bonding wires. However, Wakabayashi discloses a plurality of bonding wires electrically connecting the chip 6, the passive device 5 (i.e. chip capacitor) to and the first and second leads 3 to one another. An encapsulant material 1 encapsulating the chip 6, the passive device 5, and the bonding wires (see English abstract and all figures). Therefore, it would have been obvious to incorporate the bonding wires and encapsulant material, since the bonding wires would electrical

connect the chip to an external device while the encapsulant material would protect the chip from contamination as taught by Wakabayashi.

With respect to Claim 2, the limitation “ surface mount technology ” is a process limitation in a product claim. Such a process limitation defines the claimed invention over the prior art only to the degree that it defines the product itself. A process limitation cannot serve to patentably distinguish the product over the prior art, in the case that the product is the same as, or obvious over, the Admitted Prior Art. See Product-by-Process in MPEP 2113 and 2173.05 (p) and *In re Thorpe*, 227 USPQ 964, 966 (Fed. Cir. 1985). Therefore, the Admitted Prior Art discloses applicants claimed invention.

With respect to Claim 3, Wakabayashi discloses wherein a portion of each first and second lead 3 extends out of the encapsulant material 1 (see Figs. 3).

With respect to Claim 5, Wakabayashi discloses a CERDIP type package for a chip carrier. A CERDIP package is a plastic package as evident by Mukai et al. (U.S. 5,931,915) see col. 1 lines 32-35).

5. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over the Admitted Prior Art in view of Wakabayashi et al. JP 59-54249) as applied to claim 1 above, and further in view of Liu (U.S. 6,486,535).

With respect to Claim 4, it is well known to incorporate a quad flat package with the combination of the Admitted Prior Art and Wakabayashi as evident by Liu (U.S. 6,486,535) see col. 3 lines 67 and 68 and col. 4 lines 1 and 2).

6. Claims 6 and 9-11, 14, and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over the Admitted Prior Art and Wakabayashi et al. JP 59-54249) as

applied to claims 1 and 8 above, and further in view of and Corisis et al. (U.S. 6,215,177).

With respect to Claims 6, 9, 10, and 15, the Admitted Prior Art and Wakabayashi both fail to disclose an adhesive tape disposed on bottom surfaces of the contacts pads to improve a rigidity of the contact pads. However, Corisis discloses an adhesive tape disposed on bottom surfaces of the contacts pads (i.e. the location on the inner lead that is attached by wire bonding) to improve a rigidity (i.e. stabilizing) of the contact pads (see col. 1 lines 59-62). Even though Corisis discloses a paddleless environment. One skilled in the art would readily recognize that when a package device includes a paddle one could still use the tape at the ends of the inner leads for stabilization. Therefore, it would have been obvious to one skilled in the art at the time of the invention to incorporate a tape with the device of the Admitted Prior Art and Wakabayashi, since the tape would stabilize (i.e. improve the rigidity) of the inner leads as taught by Corisis.

With respect to Claim 11, Wakabayashi discloses wherein a portion of each first and second lead 3 extends out of the encapsulant material 1 (see Figs. 3).

With respect to Claim 14, Wakabayashi discloses a passive device that is a capacitor 5 (see English abstract).

7. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over the Admitted Prior Art, Wakabayashi et al. JP 59-54249), and Corisis et al. (U.S. 6,215,177) as applied to claim 10 above, and further in view of Liu (U.S. 6,486,535).

With respect to Claim 12, it is well known to incorporate a quad flat package with the combination of the Admitted Prior Art, and Wakabayashi as evident by Liu (U.S. 6,486,535) see col. 3 lines 67 and 68 and col. 4 lines 1 and 2).

8. Claims 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over the Admitted Prior Art, Wakabayashi et al. JP 59-54249), and Corisis et al. (U.S. 6,215,177) as applied to claim 10 above, and further in view of Mukai et al. (U.S. 5,391,915).

With respect to Claim 13, Wakabayashi discloses a Cerdip type package for a chip carrier. A Cerdip package is a plastic package as evident by Mukai et al. (U.S. 5,391,915) see col. 1 lines 32-35).

The prior art made of record and not relied upon is cited primarily to show the product of the instant invention.

### ***Conclusion***

9. Any inquiry concerning the communication or earlier communications from the examiner should be directed to Alonzo Chambliss whose telephone number is (703) 306-9143. The fax phone number for this Group is (703) 308-7722 or 7724.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-7956.

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**AC/January 25, 2003**

A handwritten signature in black ink, reading "Alonzo Chambliss". The signature is written in a cursive style with a large, stylized initial 'A'.

Alonzo Chambliss  
Patent Examiner  
Art Unit 2827